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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,277	07/08/2003	Haruyoshi Ono	030824	7735

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EXAMINER	
VAN ROY, TOD THOMAS	

ART UNIT	PAPER NUMBER
2828	

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/614,277	ONO ET AL.
	Examiner	Art Unit
	Tod T. Van Roy	2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) *1-8* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election of claims 9-24 in the reply filed on 09/30/2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Baba et al. (US 6229832).

With respect to claim 9, Baba discloses a setting value generating device that generates such a setting value that causes laser light emitted from a laser module to have a predetermined wavelength (current operating wavelength, stabilizing function, abs.) and satisfies predetermined temperature conditions and predetermined power intensity conditions (conditions can be those that exist at time of start of control), the setting value generating device comprising: an optimum power intensity calculating unit that calculates an optimum power intensity (can be the value present at start of each control loop) that maintains the predetermined wavelength and satisfies the predetermined temperature conditions and the predetermined power conditions (fig.1 #7, 1-2), an optimum temperature calculating unit that calculates an optimum temperature (temperature which is adjusted to match the optimum power) that maintains the predetermined wavelength and satisfies the predetermined temperature conditions and the predetermined power intensity conditions (fig.1 #'s 3a, 4, 8-11), a setting value generating unit that generates the setting value based on the optimum power intensity calculated by the optimum power intensity unit and the optimum temperature calculated by the optimum temperature calculating unit (fig.1 #'s 2, 3a, 4- which input to 8, col.5 lines 17-38).

With respect to claim 10, Baba discloses a relational expression defining unit that defines a relational expression between a temperature and a power intensity that

causes the laser module to maintain the predetermined wavelength (fig.1 #3a, col.5 line 23-29); and a power intensity upper and lower limit defining unit that defines an upper limit value and a lower limit value of a power intensity that satisfies the relational expression and also satisfies the predetermined temperature conditions and the predetermined power intensity conditions (fig.1 #2, col.5 lines 18-22, col.5 lines 45-67, wherein the mean, or average, is used in the calculations, the mean would inherently define a range of operating values the highest of which would be the upper value and the lowest of which would be the lower value), wherein the optimum power intensity calculating unit calculates the optimum power intensity (using drive current which is directly related to the intensity seen by the photodiode and controlled by the APC, col.5 lines 8-16) that is the middle value (mean or average) between the upper limit value and the lower limit value of the power intensity defined by the defining unit, and the optimum temperature calculating unit substitutes the optimum power intensity (can be the starting value, as Baba teaches using the deviation from this value) calculated by the optimum power intensity calculating unit in the relational expression defined by the relational expression defining unit, to thereby calculate the optimum temperature (col.5 lines 17-38).

With respect to claim 11, Baba discloses that the laser module can vary wavelengths, and the setting value is generated in relation with each of the wavelengths (col.4 lines 49-57, disclosing the presence of multiple wavelengths, each diode being controlled in a similar fashion as the single unit which is outlined in the disclosure of Baba).

Claim 12 is rejected for the reasons outlined in the rejections to claims 10 and 11. Baba has disclosed the presence of multiple wavelengths being used in the transmitting device, each being wavelength stabilized at its respective wavelength. It is inherent that there would be a shortest wavelength and a longest wavelength present, and that those wavelengths would have relational expression units, and power and temperature calculating units accordingly (these units can be separate or together as disclosed at col.4 lines 49-57).

With respect to claim 13, Baba discloses a setting value storage unit (fig.1 #12, storing current temperature data) that stores the setting value generated by the setting value generating unit, wherein the laser module contains unique identification information (previous setting value is unique to the laser diode), and the setting value storage unit relates the setting value to the unique identification information (i.e. if the new value is the same as the old, the temperature stays the same, if they are unequal, the temperature setting changes), and store the setting value.

Claims 14-18 are rejected for the same reasons given in the rejection to claims 9-13, as they are the methods for calculating the setting value that has been disclosed by Baba.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baba in view of Nasu et al. (US 203/0067949).

With respect to claims 19-23, Baba teaches the setting value generating unit as outlined in the rejection to claims 9-13 above, but does not teach the method to be adapted for use as a program product for a computer. Nasu teaches a wavelength-stabilizing module (abs.) which makes use of a program product ([0141]). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the setting value generating unit of Baba with the program product of Nasu in order to utilize the ever-increasing programming and analysis power of computers to increase the rate at which the wavelength control setting values can be determined.

With respect to claim 24, Baba and Nasu teach the program product for generating wavelength setting value as outlined in the rejection to claims 19-23, and Nasu additionally teaches the use of a recording medium for the programming product ([0141]). It would have been obvious to one of ordinary skill in the art at the time of the

invention to combine the programming product of Baba and Nasu with the recording medium of Nasu in order to make the programming product portable and accessible to be used by multiple processing stations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tod T. Van Roy whose telephone number is (571)272-8447. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on (571)272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVR